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ASSEMBLING NEW ENGLAND POULTRY

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ASSEMBLING NEW ENGLAND POULTRY [1]

Technological and organizational advances in farm production and processing of poultry have facilitated volume-handling of live birds and have lowered assembly costs. Acceptance by consumers of ice-packed poultry has resulted in a shift of processing towards large-scale country plants, so the function of assembling live birds from farms has become more localized in producing areas. For these reasons processing plants and firms servicing these plants have become the primary assemblers of poultry.

In contrast, slaughtering in cities has decreased as has the importance of receivers and buyers of live poultry and stores specializing in live poultry. Long-distance movements of live poultry to New York, Boston, and other population centers have declined absolutely and relatively to shipments of ice-packed poultry.

Newer Types of Firms Dominate Assembly System

The present assembling system in New England is a mixture of the old and the new. The older system is characterized by decreasing operations and a pessimistic outlook as numbers of small slaughterers, live-poultry stores, buyers of live poultry, terminal market live-poultry receivers, and city dressing plants dwindle. The newer types of firms have gained at the expense of the older types through extensive use of contract production. The forces which have produced the changes in the assembling system are still operating, but the question of predominance has long since been decided.

The small poultry farms of the past were serviced by small-volume assemblers. But the substantial decline in the number of poultry farms and an increase in their average size have reduced supplies available to the small assembler. Such firms usually are unable to handle large lots within a short-time period.

Most meat chickens now are produced under contract arrangements with large processors, feed companies, hatcheries, and independent contractors. This development has increased control of these firms over production and sales practices. Large processors, the contract haulers they employ, and contractors who also haul live poultry have become more important in recent years as assemblers of live poultry. Many large processors and contractors formerly were buyers of live poultry and other former independent live-poultry buyers have affiliated with specific processing plants as contract haulers.

Yet, some of the older types of assembling firms such as live-poultry buyers, live-poultry stores, and small slaughterers are still important in supplying customers who prefer to examine live birds at the point of slaughter. Also, these small firms are important in gathering such small and scattered lots of poultry which remain, particularly in noncommercial poultry producing areas.

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Types of Assemblers Defined

Most assemblers carry on several marketing functions in addition to hauling poultry. These may include buying and selling, contracting, growing, processing, and distributing. However, for each type of firm one function is clearly primary to its existence, organization, and operation. The major features of each type of assembler of live poultry are listed below:

Processing plants slaughter and eviscerate poultry for sale to volume buyers. Other functions are contributory in nature. Most plants are located at country points.

Contract haulers haul poultry mainly for processing plants at a fixed contract rate per pound. They seldom take title to any poultry.

Contractors finance growing operations. They obtain the bulk of their volume from independent farmers to whom they extend financing for cash items. They commit some lots in advance to specific plants and negotiate sales of other lots when birds reach market size.

Live-poultry buyers purchase small and mixed lots of poultry from scattered, independent producers and resell them in live form.

Live-poultry stores sell to the Kosher trade and to other customers wishing to purchase or select live birds at the point of slaughter. They are part-time slaughterers. Usually they are located in heavily populated areas.

Small slaughterers combine local assembly with processing, sales, and delivery to nearby retail outlets and consumers. Volume per plant is less than 30,000 pounds a year and operations generally are on a part-time basis.

New Types of Firms Haul Most Farm Poultry

Of 350 potential assemblers of live poultry in New England in 1957, fewer than 20 percent were processing plants, contractors, and contract haulers (table 7). But these 67 firms hauled nearly 88 percent of the volume available from farms. The remainder was hauled by 265 buyers of live poultry, live-poultry stores, and small slaughterers. About 5 percent of the 350 firms were inactive or in the process of transition to wholesale distributing or retailing operations.

Assemblers delivered to other types of assembling firms almost 30 percent of the 470 million pounds of live poultry they hauled from farms. The predominant movement between types of firms was from contract haulers, contractors, and live-poultry buyers to processing plants. In addition, firms of like type (such as processors) sometimes exchanged poultry with each other. This exchange helped to equate supplies of individual market classes on hand with customers' requirements.

Table 7.- Poultry assembling firms: Type, number, volume, and market classes of poultry assembled, New England, 1957

Type of firm	Firms	Total volume handled	Volume hauled from farms 1/	Type of poultry hauled			
				Broilers	Heavy, young chickens	Other 2/	Total
	Number	Million pounds	Million pounds	Percent	Percent	Percent	Percent
Processing plants	35	422.9	285.6	75.8	15.1	9.1	100.0
Contract haulers	10	81.5	81.5	84.7	5.9	9.4	100.0
Contractors 3/	22	45.5	45.4	60.4	35.7	3.9	100.0
Live-poultry buyers	125	56.1	52.6	11.4	50.6	38.0	100.0
Live-poultry stores	90	6.0	3.9	41.1	41.0	17.9	100.0
Small slaughterers	50	.8	.6	17.0	33.0	50.0	100.0
Inactive and transitional units	4/18	5/	6/	---	---	---	---
Total or average .	350	612.8	469.6	68.3	19.7	12.0	100.0

1/ Excludes off-farm deliveries by producers to assemblers, but includes acquisitions at cooperative live-poultry auctions.
2/ Mostly fowl and roosters; includes minor quantity of turkeys.
3/ Includes only firms which haul.
4/ Including 7 formerly engaged in processing.
5/ Not available.
6/ Insignificant.

The older (and smaller) assembling firms haul a higher percentage of fowl (a mature female chicken usually at least 10 months old) than do the newer firms. However, most assembling firms now handle a larger volume of young chickens than of fowl. Although most of New England's turkey output is produced, processed, and sold by specialized units, all types of assembling firms acquire a few turkeys, mostly surplus young birds and breeders.

Two-Thirds of Volume of Assembling Firms from Contract Sources

Almost two-thirds of the 470 million pounds of live poultry hauled by New England assembling firms in 1957 was from farms under contract to, or owned by, the hauler or his employer (table 8). About two-thirds of the volume processors hauled was from contract sources; for contractors, the proportion was more than 95 percent; and, for contract haulers, 83 percent. In contrast, more than 93 percent of the volume hauled by live-poultry buyers and almost 100 percent of that hauled by live-poultry stores and small slaughterers was from independent sources.

Table 8.- Receipts and disposition of live poultry, by type of assembler and by source and outlet, New England, 1957

Sources and outlets	Type of assembler						
	Processing plants	Contract haulers	Contractors	Live-poultry buyers	Live-poultry stores	Small slaughterers	Total
	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds	Million pounds
Receipts obtained from:							
Deliveries by producers	3.1	---	---	---	0.2	0.1	1/3.4
Assembler collections from:							
Assembler-owned farms	5.6	.4	9.5	1.4	---	.1	17.0
Own contract producers	170.6	---	32.1	---	---	---	202.7
Other contract producers	13.5	67.3	1.7	2.1	---	---	84.6
Independent producers 2/	95.9	13.8	2.1	49.1	3.9	.5	165.3
Total	285.6	81.5	45.4	52.6	3.9	.6	469.6
Other assemblers	134.2	---	.1	3.5	1.9	.1	139.8
Total	422.9	81.5	45.5	56.1	6.0	.8	1/612.8
Outlets:							
Other assemblers	1.2	76.5	35.1	26.7	.3	---	139.8
Sold outside New England	4.2	5.0	6.3	27.6	---	---	43.1
Slaughtered	417.5	---	4.1	1.8	5.7	.8	429.9

1/ Does not include 49 million pounds (live basis) of poultry sold from farms as processed poultry.
2/ Includes cooperative live auctions.

Supplies of fowl and related classes of poultry come largely from independent farms since integration has not developed to the same extent in New England in egg-producing enterprises as in commercial meat chicken enterprises. But almost three-fourths of the young-chicken volume is from farms under contract to assemblers of live poultry and their affiliates. About 4 percent of the total supply of live poultry in 1957 originated on farms owned by assembling or processing firms.

More Than 90 Percent of New England Poultry Slaughtered Locally

Of the total volume of 473 million pounds of live poultry handled by assembling firms and sold by producers in 1957, nearly 91 percent was slaughtered within New England and 43.1 million pounds, or about 9 percent, left the region alive. Movement of live poultry into New England was relatively small, about 2.6 million pounds. Live-poultry buyers accounted for the bulk of the out-movement which has declined both relatively and absolutely over the last decade.

Producers delivered about 3.4 million pounds of live poultry to various assemblers in 1957 and sold about 4.9 million pounds (live basis) as processed poultry. The five New England cooperative live-poultry auctions still functioning in 1957 handled only about 2.5 million pounds of poultry. The principal buyers on these auctions were live-poultry stores, processing plants, and live-poultry buyers — in that order.

Resources Devoted to Assembling Poultry Declining, Efficiency Increasing

During 1951-57 the number of firms licensed by State departments of agriculture to haul live poultry in New England declined 55 percent. The number of poultry trucks licensed declined 47 percent. The number of one-truck firms declined 58 percent; firms with 2 to 6 trucks, 53 percent. Firms with 7 or more trucks increased in number, and the average number of trucks per firm increased.

Output of poultry meat in New England increased about one-third from 1951 to 1957. Hence, over the 6-year period, average volume of poultry hauled per licensed firm almost tripled and average volume per licensed truck increased 2-1/2 times. These increases in volume per firm and per truck have helped reduce costs of assembling. Increased labor efficiency has resulted from handling fewer but larger lots of poultry and from higher output per worker with larger crews. Furthermore, contract production has permitted economies through better truck-route organization and location of producing units, but full exploitation of these possibilities has not yet resulted.

The average number of pounds of poultry hauled annually per truck, per mile of travel, and per man-hour generally increased with the size of assembling firms (table 9). This increase with size of firm may be the result, in part, of a close relation between the size and type of firm, as well as the result of economies of scale in assembly.

Table 9.- Measures of performance efficiency for firms assembling live poultry, New England, 1957 1/

Type of firm	Annual volume hauled per firm	Trucks per firm	Percentage of truck capacity used annually 2/	Average volume of live poultry picked up - Per truck-year	Per truck-mile traveled	Per man-hour spent in hauling
	1,000 pounds	Number	Percent	1,000 pounds	Pounds	Pounds
Processing plants ..	14,802	7.4	40.0	2,014	67.8	387
Contract haulers ...	11,936	5.5	38.0	2,170	77.0	342
Contractors	3,226	3.9	19.0	829	42.4	315
Live-poultry buyers	629	1.3	18.5	473	24.1	177
Live-poultry stores	64	1.0	9.5	64	9.6	84
Small slaughterers .	11	1.0	7.0	11	3.1	38

1/ Based upon a stratified random sample of 75 firms.

2/ Annual capacity equals crate capacity of each truck times average weight per full crate of birds times two trips per day for 247 operating days.

Substantial Economies of Scale Likely in Assembling Poultry

Preliminary analyses indicate that some large firms were able to assemble live poultry in 1957 for 0.5 cent a pound. Many other firms operated on 1.0 cent a pound or less. But some firms incurred costs of as much as 2.0 to 5.0 cents per pound. Among the reasons for these high costs are: A sharply declining total volume, assembly of small individual lots of poultry, operation in areas where poultry production is scattered, and a low rate of utilization of equipment. Some former live-poultry buyers have turned to contract hauling arrangements with mileage limitations as a desirable alternative to independent operations over a wide geographical area. Many small firms often pay but scant attention to the efficiency of their assembly operations because assembly requires only a small part of the total margin obtained from processing and/or retailing.

Even when operations were confined to supply areas of comparable size, density, and other characteristics, unit costs of assembling live poultry declined with increasing firm size. Economies of scale were obtained for the two main variable cost items, labor and truck operating costs, as well as for fixed costs such as the ownership of equipment.

However, despite the substantial association of firm size and type with efficiency of operation, variations occurred for firms of like size and type. These reflected differences in the competency of management and in the ability of the firm to adjust to changing conditions. Further analysis is under way to determine the optimum combinations of assembling, processing, and distributing units for particular types of producing areas. It is probable that efficient smaller firms can best compete by integrating these functions, by concentrating on fowl and other heavy market classes, and by buying largely in noncommercial poultry areas.